


ISC PA

QUERY CONTROL FORM		RTIS USE ONLY	
Application No. 87665663	Prepared by Q7	Tracking Number 5887761	
Examiner-GAU COTERMAN	Date 3-11-04	Week Date 1-12-04	
2823	No. of queries 1	IFW	


JACKET			
a. Serial No.	f. Foreign Priority	k. Print Claim(s)	p. PTO-1449
b. Applicant(s)	g. Disclaimer	l. Print Fig.	q. PTOL-85b
c. Continuing Data	h. Microfiche Appendix	m. Searched Column	r. Abstract
d. PCT	i. Title	n. PTO-270/328	s. Sheets/Figs
e. Domestic Priority	j. Claims Allowed	o. PTO-892	t. Other

SPECIFICATION	MESSAGE
a. Page Missing	IN THE RENUMBERING OF CLAIMS, CLAIM 3 NOW DEPENDS ON CLAIM 4 (ORIGINAL CLAIM 2) AND CLAIM 7 DEPENDS ON CLAIM 8 (ORIGINAL CLAIM 12).
b. Text Continuity	
c. Holes through Data	
d. Other Missing Text	
e. Illegible Text	
f. Duplicate Text	
g. Brief Description	
h. Sequence Listing	
i. Appendix	
j. Amendments	
k. Other	
CLAIMS	PLEASE CORRECT DEPENDENCY
a. Claim(s) Missing	THANK YOU initials JF
b. Improper Dependency	
c. Duplicate Numbers	
d. Incorrect Numbering	
e. Index Disagrees	
f. Punctuation	
g. Amendments	
h. Bracketing	
i. Missing Text	
j. Duplicate Text	
k. Other	
	RESPONSE CORRECTED (I.E. RENUMBERED CLAIMS)
	initials [signature]


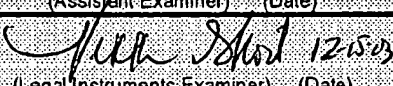
Issue Classification 	Application No.	Applicant(s)	
	09/665,663	UEDA, SHIGEYUKI	
	Examiner	Art Unit	
	W. David Coleman	2823	

ISSUE CLASSIFICATION										
ORIGINAL					CROSS REFERENCE(S)					
CLASS	SUBCLASS				CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)				
257	777									
INTERNATIONAL CLASSIFICATION										
H	0	1	L	23/28						
H	0	1	L	23/52						
H	0	1	L	29/40						
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None (Assistant Examiner) (Date) <i>Yukihiko Shiro</i> 4/1/04 (Legal Instruments Examiner) (Date)					W. DAVID COLEMAN PRIMARY EXAMINER <i>W. David Coleman</i> (Priority Examiner) 4/1/04					Total Claims Allowed: 10 OG Print Claim(s) 1 OG Print Fig. 2

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant				<input type="checkbox"/> CPA				<input type="checkbox"/> T.D.				<input type="checkbox"/> R.1.47			
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original		
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5	5		35		65		95		125		155		185		
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None (Assistant Examiner) (Date)	 W. David Coleman Primary Examiner (Primary Examiner) (Date) 12/13/03	Total Claims Allowed: 10	
 (Legal Instruments Examiner) (Date) 12/15/03		O.G. Print Claim(s) 1	O.G. Print Fig 2

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4/1/04

Corrected

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CLMPTO

12/16/03

CLAIM 1 (CANCELLED)

2 (Amended) The semiconductor chip according to claim 11, wherein
said semiconductor chip is overlapped with and joined to a surface of
another solid device in a state where said surface protective film is opposed to a
surface of the solid device.

3 (Amended) The semiconductor chip according to claim 2, further
comprising

an internal connection pad which is formed by partially exposing said the
internal wiring from said surface protective film in a portion of different from said
external connection pad, and

an electrical contact projection formed in a raised state on the internal
connection pad using a metal material having oxidation resistance in order to make
electrical connection to the said solid device.

4 The semiconductor chip according to claim 2,
wherein

said solid device includes another semiconductor
chip.

5 (Amended) The semiconductor chip according to claim 3, wherein

said wire connecting portion is composed of the same material as that for
said electrical contact projection.

CLAIM 6 (CANCELLED)

7 (Twice Amended) The semiconductor chip according to claim 12,
wherein

said wire connecting portion is composed of the same material as that for
said electrical contact projection.

CLAIM 8-9 (CANCELLED)

9 10. (Amended) The semiconductor chip according to claim 12, further comprising a lead frame and a bonding wire, the bonding wire electrically interconnecting the lead frame and the wire connecting portion.

11. (Amended) A semiconductor chip adapted for electrical connection to an external terminal, comprising:

- a semiconductor chip body having a surface with internal wiring disposed thereon, at least one surface area of the internal wiring defining an external connection pad and at least one other surface area different from the at least one surface area of the internal wiring defining an internal connection pad, both the external connection pad and the internal connection pad facing in a same direction as the surface of the semiconductor chip body;

- a wire connecting portion fabricated from a metal material having oxidation resistance and electrically connected to the external connection pad;

- an electrical contact projection fabricated from a metal material having oxidation resistance and electrically connected to the internal connection pad;

- a surface protective film covering the internal wiring and the surface of the semiconductor chip body while contacting the wire connecting portion and the electrical contact projection in a surrounding manner such that a segment of the wire connecting portion and a segment of the electrical contact projection project from the surface protective film; and

- a wire electrically connected to the segment of the wire connecting portion for connecting the semiconductor chip to the external terminal, wherein

- the electrical contact projection is in a form of a bump and the wire connecting portion substantially has a shape of the bump.

12. (Amended) A semiconductor device having a chip-on-chip structure in which a secondary chip is overlapped with and joined to a primary chip, wherein said primary chip comprises

a primary chip body having a surface with internal wiring disposed thereon, at least one surface area of the internal wiring defining an external connection pad and at least one other surface area different from the at least one surface area of the internal wiring defining an internal connection pad, both the external connection pad and the internal connection pad facing in a same direction as the surface of the primary chip body;

a wire connecting portion fabricated from a metal material having oxidation resistance and electrically connected to the external connection pad;

an electrical contact projection fabricated from a metal material having oxidation resistance and electrically connected to the internal connection pad, the electrical contact projection operative to electrically connect the primary and secondary chips together; and

a surface protective film covering the internal wiring and the surface of the primary chip body while contacting the wire connecting portion and the electrical contact projection in a surrounding manner such that a segment of the wire connecting portion and a segment of the electrical contact projection project from the surface protective film, wherein

the electrical contact projection is in a form of a bump and the wire connecting portion substantially has a shape of the bump.

9 - 13. (NEW) The semiconductor chip according to claim 11, wherein the wire connection portion and the electrical contact projection are made of the same material and have simultaneously been formed.

10 14. (NEW) The semiconductor chip according to claim 12, wherein the wire connection portion and the electrical contact projection are made of the same material and have simultaneously been formed. -